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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,092	02/23/2005	Toshiaki Kimura	OGA-013	3275

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EXAMINER

TOSCANO, ALICIA

ART UNIT	PAPER NUMBER
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1712

MAIL DATE	DELIVERY MODE
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05/16/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/525,092	Applicant(s) KIMURA ET AL.	
	Examiner Alicia M. Toscano	Art Unit 1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 April 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of the translation of JP 2002-254201 and JP 2002-377241 papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. Applicants have submitted another set of drawings. Said drawings are not numbered correctly. Examiner does not know why new drawings were submitted and objects to Figures 1, 5 and 6, there are two Fig 1's and thusly Fig's 5 and 6 are numbered incorrectly. Appropriate correction required.

Claim Objections

3. Claim 3 is objected to because of the following informalities: "said wherein" should be "wherein said". Appropriate correction is required.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1, 3-11, 13, 15, 16, 19, 20, 21, 23 and 26- 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura (JP 2001-131827, English

Art Unit: 1712

translation provided) in view of Tan (WO 0212395, US 6710135 is used as and Equivalent English document) in further view Kondo (US 5593778).

Nishimura discloses polylactic acid based flat yarns. Said yarns comprise polylactic acid with molecular weight 90,000-110,000 [0005], and a lubricant in the amount of 0.5-5 wt% [0007]. The lubricant may be ethylene bis-oleic amide and the like [0005], or an alkyl-substituted fatty acid monoamide, as required by Claims 1 and 5. Nishimura does not disclose the use of melt spun yarns.

Tan discloses polylactic acid resin compositions. Said compositions are used for nonwoven fabrics and yarn (Column 3 Lines 25-26). Said polylactic acid has a molecular weight from 2000-500,000 (Column 6 Line 60) and may contain a lubricant (Column 7 Line 44). Tan teaches the composition to be useful for tape yarn production as well as melt spun yarn (Column 10 Lines 26-39). Tan thusly teaches melt spinning and tape yarn formation to be functionally equivalent uses for the composition.

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Nishimura the use of melt spinning, as taught by Tan, as this technique is recognized in the art as a functional equivalent of tape yarn production.

Tan discloses that the tex or denier of the yarn is dependant on the end use but Tan does not disclose what range of tex is used (Column 12 Line 29). Kondo discloses biodegradable copolyester compositions. Said compositions are melt spun into fibers. The fineness of the fiber dictates the feeling of wearing, where thinner fibers are softer and thicker fibers are stiffer (Column 38 lines 39-52). Typical fineness is from 5-50 d (denier), or 0.5-5.5 tex, or 5-55 dtex (tex=denier/9).

Art Unit: 1712

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Nishimura and Tan the use of 5-55 dtex fineness, as taught by Kondo, in order to increase the softness of the resulting article, thusly meeting all the limitations of Claim 1.

As the composition requirements have been met, Examiner finds the properties of Claims 3, 4, 6, 7, 8, 9 and 31 to be inherent. Tan discloses the melt-spun and tape yarn to be used for filaments, false twist texturing, as staple fibers, as knitted fabric, as woven and nonwoven fabric and as carpet, as required by Claims 10, 16, 20, 21, 26-30. As the compositional requirements are met the Examiner finds the properties of Claims 11, 19, 20 and 23 to be inherent in Nishimura, Tan and Kondo.

5. Claims 1, 3-11, 13, 15, 16, 19, 20, 21, 23 and 26-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Obuchi (US 6417294) in view of Tan (WO 0212395, US 6710135 is used as and Equivalent English document) in further view Kondo (US 5593778).

Obuchi discloses films and articles formed from polyester compositions containing a nucleating agent. The polyester is polylactic acid having a molecular weight of 90,000-500,000 (Column 9 Line 39). The nucleating agent is 0.1-10 wt% of the composition (Column 6 Line 46) and comprises ethylenebislaureamide, hexamethylenebisoleamide, and the like (Column 10 Lines 22-49), as required by Claims 1 and 5. Obuchi's composition is extrusion molded (Column 15 Lines 30-62).

Art Unit: 1712

The molded article may be further used to form filaments and the like (Column 16 Line 50). Obuchi does not disclose the use of melt spun yarn.

Tan discloses polylactic acid resin compositions. Said compositions are used for nonwoven fabrics and yarn (Column 3 Lines 25-26). Said polylactic acid has a molecular weight from 2000-500,000 (Column 6 Line 60) and may contain a lubricant (Column 7 Line 44). Tan teaches the composition to be useful for extrusion molding production as well as melt spun yarns (Column 10 Lines 26-39). Tan thusly teaches melt spinning and extrusion molding to be functionally equivalent uses for the composition.

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Obuchi the use of melt spinning, as taught by Tan, as this technique is recognized in the art as a functional equivalent of tape yarn production.

Tan discloses that the tex, or denier, or the yarn is dependant on the end use but Tan does not disclose what range of tex is used. Kondo discloses biodegradable copolyester compositions. Said compositions are melt spun into fibers. The fineness of the fiber dictates the feeling of wearing, where thinner fibers are softer and thicker fibers are stiffer (Column 38 lines 39-52). Typical fineness is from 5-50 d (denier), or 0.5-5.5 tex, or 5-55 dtex ($\text{tex} = \text{denier}/9$).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Obuchi and Tan the use of 5-55 dtex fineness, as taught by Kondo, in order to increase the softness of the resulting article, thusly meeting all the limitations of Claim 1.

As the composition requirements have been met, Examiner finds the properties of Claims 3, 4, 6, 7, 8, 9 and 31 to be inherent. Tan discloses the melt-spun and tape yarn to be used for filaments, false twist texturing, as staple fibers, as knitted fabric, as woven and nonwoven fabric and as carpet, as required by Claims 10, 16, 20, 21, 26-30. As the compositional requirements are met the Examiner finds the properties of Claims 11, 19, 20 and 23 to be inherent in Obuchi, Tan and Kondo.

6. Claims 13, 15, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura, Tan and Kondo or Obuchi, Tan and Kondo, in further view of Anderson (US 4009513).

Nishimura, Tan and Kondo, and, Obuchi, Tan and Kondo include elements of the invention as discussed above. Nishimura, Tan and Kondo, and, Obuchi, Tan and Kondo do not include the use of fluid texturing to crimp the fiber, or the use of wound fibers.

Anderson discloses the production of yarn. Said yarn is disclosed to be wound on a beam prior to subsequent processing. Crimping, or texturing yarn, is disclosed in Column 1 Lines 34-41. Anderson discloses fluid texturing to be functionally equivalent to false twist texturing (Column 6 Lines 52-53). False twist texturing is disclosed by Tan, as set forth above.

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Nishimura, Tan and Kondo or Obuchi, Tan and Kondo, the use of

Art Unit: 1712

fluid texturing, as taught by Anderson, since this is recognized in the art as being functionally equivalent to false twist texturing.

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Nishimura, Tan and Kondo or Obuchi, Tan and Kondo the use of winding the fiber on a beam, as taught by Anderson, in order to aid in handling the fiber for future processing.

7. Claims 12, 14, 17, 18 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura, Tan and Kondo or Obuchi, Tan and Kondo in view of Yamakita (US 2003/0079297).

Nishimura, Tan and Kondo, and, Obuchi, Tan and Kondo include elements of the invention as discussed above. Nishimura, Tan and Kondo, and, Obuchi, Tan and Kondo do not include the use of a smoothing agent to coat their fibers.

Yamakita discloses agents for coating biodegradable yarns (abstract). The biodegradable yarn may be polylactic acid [0003]. The yarns are coated with an aqueous solution in order to improve lubricity, cohesion and to prevent fuzzing and breaking (abstract). The solution comprises a polyether and/or polyether ester polymer [0007]-[0009] and [0021], or a smoothing agent. Said polyether component may comprise an alcohol, like methyl alcohol, butyl alcohol and the like [0024] and an alkylene oxide having 2-4 carbon atoms [0025], as required by the above Claims.

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Nishimura, Tan and Kondo or Obuchi, Tan and Kondo, the use of

a polyether smoothing agent, as taught by Yamakita, in order to improve lubricity, cohesion and to prevent fuzzing and breaking.

Conclusion

Response to Arguments

8. Applicant's arguments, see remarks, filed 4/3/07, with respect to the rejection(s) of claim(s) 1-31 have been fully considered and are persuasive due to Applicant's amendment. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made. See above.

9. Claim 25 was mistakenly forgotten in the previous action but was not noted as being allowable. Claim 25 should have been rejected in the Tan, or, Nishimura or Obuchi or Kolstad in view of Tan, in further view of Anderson rejection of 1/3/07.

10. Applicant argues that melt spinning of a fiber having such small fineness requires filtering the composition prior to melt spinning and that compositions used for extrusion or injection molding cannot be expected to exhibit the same properties and characteristics when used in melt spinning. Examiner requests evidence to back up Applicant's arguments.

11. Applicants arguments drawn to Nishimura teaching only a dtex of greater than 500 is moot since Nishimura is making flat yarns, not melt spun yarns. One would recognize that different yarn making methods would have different ranges of optimal fineness production. Melt spun fibers can be produced within the range of Applicant's Claims, as taught by Kondo.

Art Unit: 1712

12. That Nishimura only uses erucic acid amide in the examples is moot. Nishimura teaches the use of fatty acid bis amides in [0006], including ethylene bis oleic amide. Examiner notes that ethylene bis oleic amide is disclosed by Applicants in [0070] as being used for in the composition.

13. Arguments regarding Obuchi over the newly amended claims are moot due to new grounds of rejection.

14. Rejection of Kolstand v. Nakata has been removed to simplify prosecution.

15. Arguments drawn to the previous rejection are considered moot due to newly amended claims and new grounds of rejection.

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

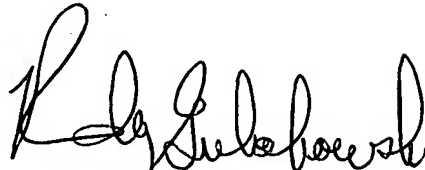
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia M. Toscano whose telephone number is 571-272-2451. The examiner can normally be reached on Monday to Friday 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AMT


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